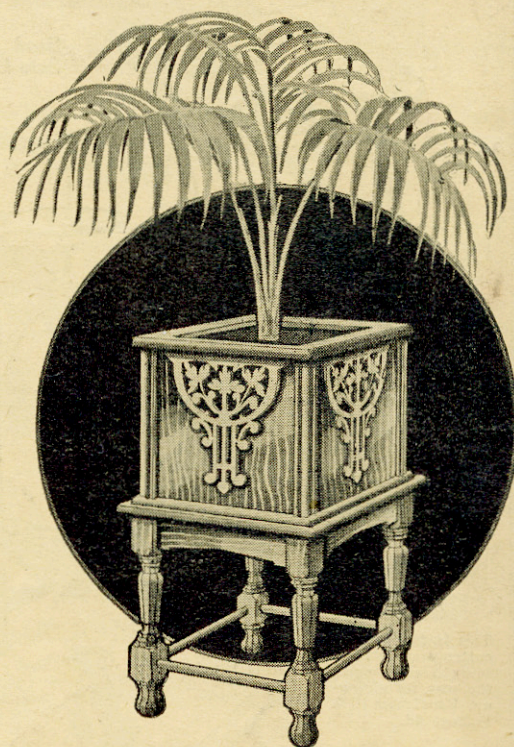


# Hobbies

## WEEKLY

CONVERTIBLE  
**PLANT  
HOLDER  
OR STOOL**

LARGE FREE DESIGN INSIDE



March 5th, 1938

2<sup>D</sup>

Vol. 85. No. 2211

THE **FRETWORKER'S** AND  
HOME CRAFTSMAN'S JOURNAL



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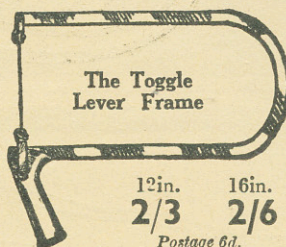


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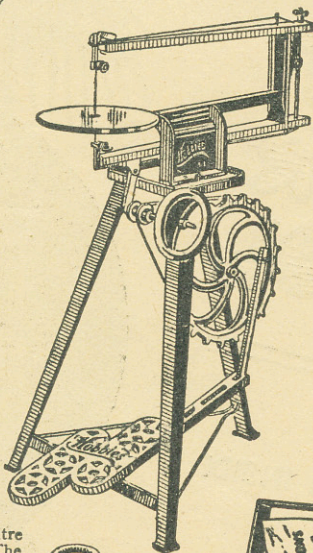
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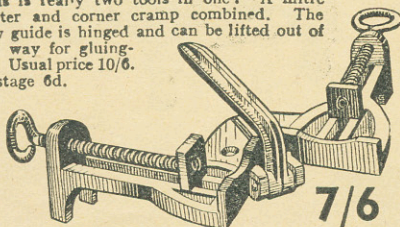
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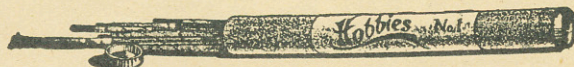
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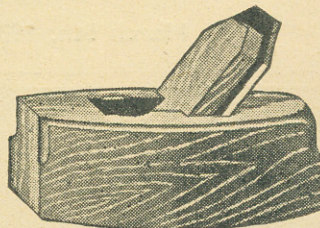
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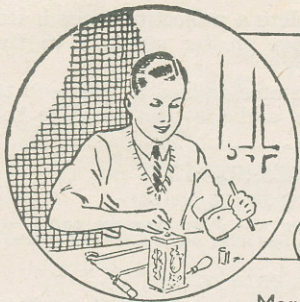


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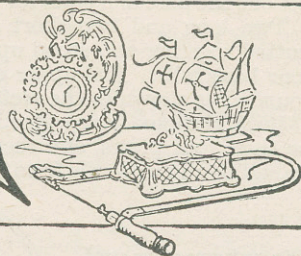
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# Hobbies

## WEEKLY



March 5th. 1938

Vol. 85. No. 2211

## PLANT STAND OR STOOL

**T**HIS week we provide what can be almost two designs in one on our design sheet, for it gives readers the opportunity of making a complete and handsome plant stand or a simple stool for everyday fireside use.

A picture of both these is shown, and the making is simplified from the full size patterns shown on the sheet. Not to mention, of course, the special parcel of wood with all the boards in their correct size and thickness.

Indeed, there are two parcels obtainable according to your requirements. One is to make the whole thing up as a palm stand, and stool, the other contains the stool portion only.

There is a little difference in the construction of both which it is worth noting before going any further. This is that as constructed for the plant stand the top of the stool is left hollow as an open framework.

### As a Stool

If you are going to use it as a stool for sitting upon, then you must have a solid top which is composed of a piece of  $\frac{3}{4}$  in. wood 11 ins. square. This piece is supplied in the parcel for the stool only, but is not in that for the completed plant stand.

The whole thing should be built in some solid material such as beech or oak, and when complete it stands nearly 2 ft. high and is just over 1 ft. square. The construction is almost obvious from the details given here-with in conjunction with reference to the actual patterns and the further details on the design sheet.

The four shaped legs are supplied in the parcel grooved, and if you have your own in which you want to cut the

groove, sink it to take the tenon on the upper rails.

These tenons are  $\frac{3}{4}$  in. wide,  $\frac{3}{4}$  in. long, and set on two sides of the stool  $\frac{1}{4}$  in. inwards from the outer face. Do not set them exactly central or you will cut away too much "meat" and so reduce the strength. They do not extend the complete width of the rail, but are shouldered at  $1\frac{1}{2}$  ins. to give further rigidity.

### The Legs and Rails

The legs must all be cut off the same length first, and should be marked 1, 2, 3, 4 for ease during building. The lower rails are composed of four pieces of dowelling which is let  $\frac{1}{2}$  in. into each leg and there glued.

Make two complete sides of two rails and two legs first. Then take the other two pieces of dowel and the other two top rails, and complete the whole framework. Test out with a square to see the hole is true, and get the top of the legs and rails flush all round.

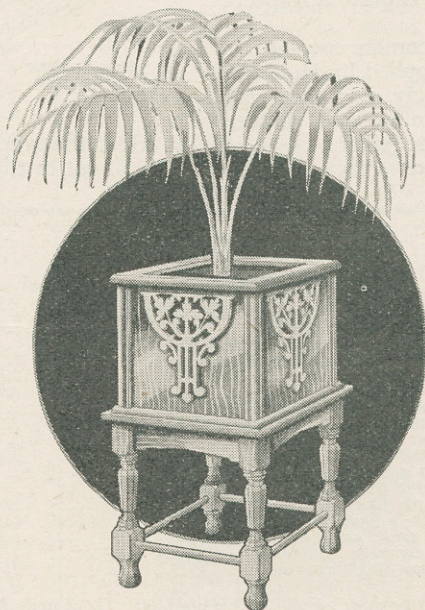
Now fit on the hollow framework of the flat rails. These are 12 ins. long,  $1\frac{1}{2}$  ins. wide, cut from  $\frac{3}{4}$  in. wood.

Each end is mitred to an angle of 45 degrees, and the whole forms a hollow frame which is glued and screwed down to the rails of the stool portion.

Fillet strips can be glued in underneath as strengthening blocks if desired, whilst the outer and upper edge of the rails should be rounded off with glasspaper to make it more artistic.

If you are having the stool only, the top piece can now be added, and this 11 ins. square of wood is glued down very firmly to the framework of the stool.

If, however, you are going



**Full Size patterns on  
our Gift Design Sheet**



on to complete the fern holder, stand it aside and get out the base and sides for the box frame.

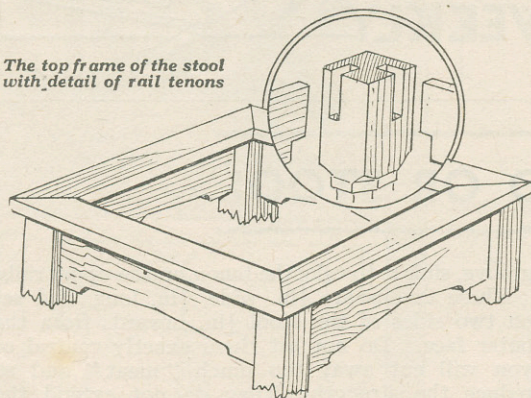
Two long and two short sides (A and B) are butted together and stood upon a hollow frame of four base rails. The upper outer edge of these is rounded as shown in the section.

With the box frame glued together it is stood on these four pieces, and there glued also. Screws should be run upwards from beneath to strengthen

just at the ends. Here a projecting piece is extended in order to give greater strength to the whole thing.

These rails are, of course, mitred at each end to make a hollow square and are then glued to the

The top frame of the stool with detail of rail tenons



the whole thing, whilst it is a good plan to put triangular fillet strips into the corners as can be seen in the detail, as these strengthen up the whole thing.

Further rigidity is also provided by the addition of four floor pieces. These are cross bearers cut from  $\frac{3}{4}$  in. wood which are screwed inside the box down to the bottom rails. They serve as a stand to hold the plant pot in position.

By the way, it may be of interest to know that the aperture of this box should be sufficient to accommodate a gin. pot, which is quite a respectable plant size.

The main box frame has its corners covered by the special shaped moulding supplied by Hobbies. This is No. 300 and it fits snugly over the right angle covering up the butt joint, and further helping to bind the whole thing together.

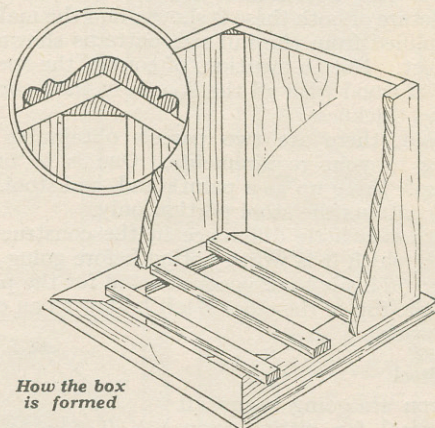
Of course, if you are using screws they must be countersunk below the surface of the wood so the moulding is not lifted. Cut the moulding the exact length of the sides so it fits on to the bottom rails, and is flush with the top.

Do not have it projecting above the top edge, or again you will not have the rails bed flat down.

The upper edge of the sides and corners are covered by top narrow rails. These are pieces of  $\frac{3}{4}$  in. material  $11\frac{1}{2}$  ins. long and 1 in. wide except

upper edge of the sides. Screws can be added if you think fit, but again they must be sunk below the surface and the hole filled in with plastic wood before staining.

The outer edge of this top rail also should be rounded to reduce the apparent thickness. Under these rails forming a pleasing panel to each side,



How the box is formed

are added the overlays, each as a single piece of  $\frac{1}{8}$  in. material cut to the design shown.

If you have a fret machine each of these can be cut in duplicate so you only have two operations.

Clean them up thoroughly and glue them close up under the rail to each side. The stand should be finished off with stain and can then be given a coat of varnish or polish, or left with a semi gloss by rubbing of waxine or similar wax polish. It is worth spending some time in finishing off to make a satisfactory job of the whole thing.

## MATERIALS SUPPLIED

### COMPLETE STAND (2211A)

Fretwood. For making this Plant Box we supply a parcel of selected Beech, including angle fillet and round rod, 9/-, post free 9/9.

### STOOL ONLY (2211B)

For making Stool, a parcel of Beech is supplied, including four No. 541 Beech Legs ready grooved for fixing, and sufficient round rod, 5/3, post free 5/9

A complete parcel of A and B for making Box and Stool, 15/-, post paid.

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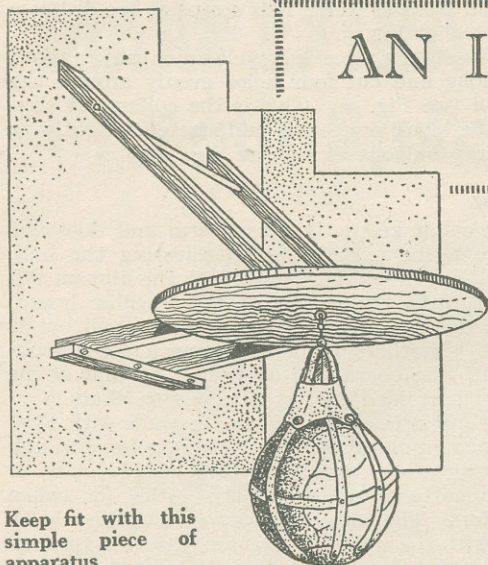
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# AN INEXPENSIVE PUNCH BALL



“**B**OX—and keep fit,” is an excellent motto, and here are details of a simple gymnasium device that is not unlike the real thing. By its means, you can convert a 9in. diam. (regulation size) football into a serviceable punch-ball, then when you grow tired of punching, the ball can be unbuttoned from the strapping and used for punting about and vice versa according to the mood.

The leather cover is not harmed in any way, and junior sizes of footballs can be incorporated, too, so that the whole affair is inexpensive, practical and well worth undertaking.

There is nothing difficult about the ball strapping or the board and supports—just a few pieces of rubber or leather strips fixed in an easy way, with laths of wood dowelled and screwed together.

## Board and Supports

Fig. 1 gives the size of the board and supports. The view is a top one showing the article folded flat. The board is cut (with a keyhole saw) from a piece of  $\frac{1}{2}$ in. or  $\frac{3}{8}$ in. birch plywood, the edges being rounded with a spokeshave and glass-papered smooth.

The supports consist mainly of deal laths  $1\frac{1}{4}$ ins. wide by  $\frac{7}{8}$ in. thick. To assemble, screw a 14in. long cross-rail to the ends of two 18ins. long pieces so that the overall width is 22ins.

The frame which drops between same should not be made to do so loosely. First cut the rails to length (29ins.) and scribe an  $1\frac{1}{4}$ in. circle at one end of each with the compasses. Bore  $\frac{1}{2}$ in. holes

## MATERIALS REQUIRED

- 1 piece plywood, 20ins. by 20ins. by  $\frac{1}{2}$ in. thick.
- 1 cross-rail, 14ins. by  $1\frac{1}{4}$ ins. by  $\frac{1}{2}$ in. thick.
- 2 board laths, 18ins. by ditto.
- 2 support laths, 29ins. by ditto.
- 2 dowels, 11ins. by  $\frac{1}{2}$ in. diam.
- Some screws and leather or rubber.

through in the centre of the circles, then round the ends to the pencilled rings.

The holes in the opposite ends are made about 4ins. inwards. The ends are then cut to a point as shown by the detail. Glue two  $10\frac{1}{4}$ in. long  $\frac{1}{2}$ in. dowels into the rails to be flush with the outside.

The frame is “hinged” to the other with 2in. by 10 roundhead iron screws driven into the centre of the end dowels. The outside frame is screwed to the board with  $1\frac{1}{4}$ in. flathead screws, after which the article can be enamelled, polished or merely stained a brown colour.

## The Ball Strapping

Having procured the football, pump it up well and see it is properly laced. You will now need some soft leather or rubber strips about  $\frac{5}{8}$ in. wide. An old motor inner tube will give you plenty of this material.

If the ball is of regulation size (No. 5), cut three strips about 29ins. long and fix two together in the centre X-style with boot-eyes or by stitching with thread. A spot of glue or rubber solution should be also applied.

The cross-shaped strip is placed over the ball. The third strip is brought around the circumference so that it is mid-way between the top and bottom of the ball (see Fig. 2).

Mark the positions where the strips cross one another, then remove them and affix together as explained. You should have four loose ends hanging towards the bottom.

## The Hanging Piece

The rest of the strapping is made by connecting two 38in. lengths crosswise on a block of wood  $3\frac{1}{2}$ ins. long by  $\frac{1}{2}$ in. by  $\frac{5}{8}$ in. thick. Do this with

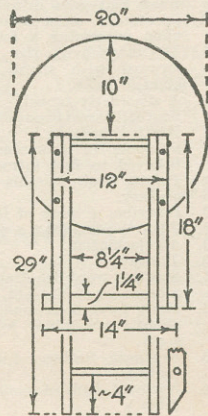


Fig. 1—Dimensions of board and supports

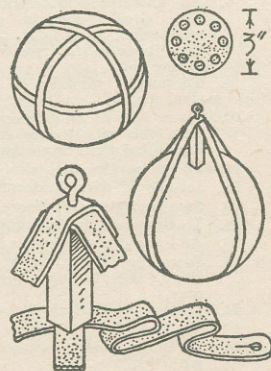


Fig. 2—Stages of the ball strapping



glue or solution and a strong hookeye (see enlarged view at Fig. 2). The other end of the block is affixed (with adhesive and a large carpet tack) to the rest of the strapping made previously as shown.

The loose ends are, after cutting out a 3in. circle of the material and sewing eight trouser

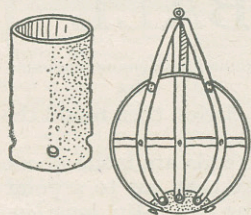


Fig. 3—The straps buttoned

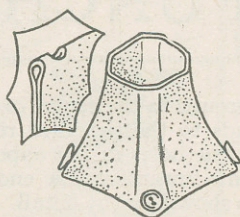


Fig. 4—Details of the elastic collar

buttons on it as detailed, brought around to the base of the ball and cut even with the buttons (see Fig. 3).

If the straps are of leather, cut the buttonholes similar to braces with rubber, a hole is only necessary, same being cut with scissors as at Fig. 4, i.e., as by the inset.

Having buttoned the strapping around the ball, sew four buttons to the four straps at the distance suggested at Fig. 3.

Now obtain a piece of bicycle inner tubing about 4ins. long and cut four holes evenly around the bottom (see Fig. 3). This is the collar. It slips over the block projection and stretches tightly to the strap buttons as seen at Fig. 4.

### Hanging

The collar keeps the straps firm and does not require to be removed when releasing the ball. A hook-eye should be opened with the nippers and screwed into the centre of the circular board. When the ball eye is inserted, the opened eye is closed. Another method is to screw a closed hook-eye into the board and connect it to that of the ball with braided cord or wire picture chain.

The supports are affixed to the walls with 2½in. by 10 roundhead screws. Bore holes through the lower cross-rail (about three would do) to be conveniently away from the laths for when screwing. The tops of the upper laths should lie even with the wall. Screws are driven in through the top edge about 2½ins. from the ends.

## CUP-TIE CROSSWORD!

See if you can Solve This Soccer Puzzle in 30 minutes?



**A**s this week sees the next round of the fight for the Football Cup, what could be more appropriate than a Football Crossword Puzzle to help you pass a few idle minutes?

It must be remembered, of course, that no prizes are offered for correct solutions. We provide the puzzle for your own amusement only. If you are a football fan, you are sure to get a "kick" out of solving the various clues. There are no worrying alternatives, but there are plenty of helpful abbreviations.

The puzzle is certainly a novel way of testing your knowledge of the great game, the names of certain Teams and members thereof, including other connections.

Even if you are not interested in football, you are sure to know something about it. Why not have a "shot" at it right away? The correct solution will appear in next week's issue.

### CLUES DOWN

1. Short for "Newtownards."
2. Surname of Manchester City's goalkeeper.
3. Neat goals are usually scored with it.
4. An untruthful statement.
5. The Greek goddess of retribution.
6. This bone often receives severe kicks.
7. To roughly shoulder off a rival player.
8. There will be more people from this city to see the Cup Final than any other.
9. To make the ball rise.
10. Initials of Alex Anderson.
11. Seen in centre of "cheers."
12. To disregard fan's taunts.
13. An injured player upsets it.
14. Some footballers have a slight one through poor play.
15. Wolves 2, Chelsea 2.
16. To kick the ball hard.
17. Christian name beginning with "L."
18. Belfast Booking Agency (abbr.).

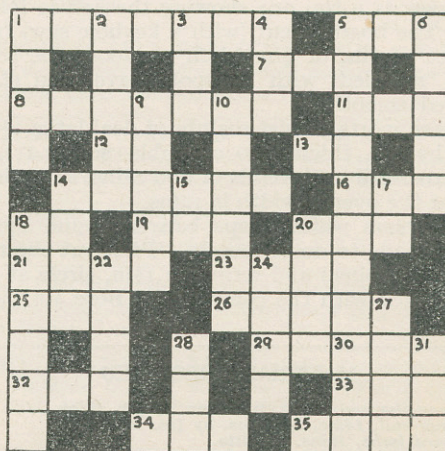
31. Takes a "goalie" to have a good one.

### CLUES ACROSS

1. A well-known English team.
2. There's much excitement when ball goes into this.
3. Spectators often show it upon witnessing a foul.
4. To manoeuvre the ball forward with slight side kicks.
5. A disorderly crowd.
6. Football Association (abbr.).
7. North East (abbr.).
8. Surname of promoter believed to first introduce Points Pools in this country.
9. Describes a mass of faces.
10. "Rio" beheaded.
11. An ejaculation.
12. To draw.
13. Sporting word denoting the attendance at Matches.
14. Many have been made up about our great winter sport.
15. Northern Railway Inc. (abbr.).
16. National Rifle Association (abbr.).

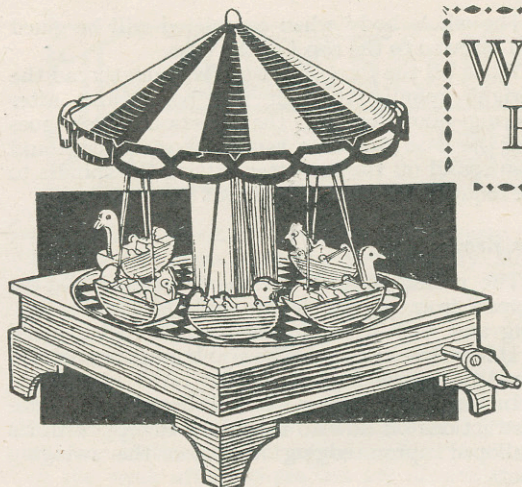
29. To walk slowly.
32. Short for "referee".
33. A youth.

34. What all the "kicking" is about.
35. All players must be.



Look out for another "hobby" Crossword very shortly





# WORKING MODEL ROUNABOUTS

THE little toy roundabout which we show on this page should certainly please our toy makers, as it is a most attractive working toy and is easily cut and constructed.

As the illustrations show, it consists of a square box base in which there are two grooved wheels, one of these being fixed to the main upright spindle which supports the canopy and the boats, and one fixed to a horizontal spindle. The two wheels are connected to a band or belt so the whole may be actuated by a turn of the handle which is attached to the horizontal spindle.

## Working Parts

In Fig. 1 is shown clearly all the working parts, the two near sides of the box being cut away for this purpose, and each part again is lettered so that the cutting list at the foot of this column may be followed and the parts set out from it ready for cutting and fixing together.

The base of the box is provided with shaped legs which must be attached to give clearance for the hand when turning the handle, see J Fig. 1. The square block E is glued to the base and the side C, and has a full  $\frac{3}{16}$  in. hole made in it in such a position that it comes exactly opposite the hole in the side D.

The horizontal spindle H will thus work truly

## CUTTING LIST

- A—Cut 1, 9 ins. by 9 ins. by  $\frac{1}{4}$  in.
- B—Cut 8,  $\frac{1}{4}$  ins. by  $\frac{1}{4}$  ins. by  $\frac{3}{16}$  in.
- C—Cut 2  $\frac{8}{16}$  ins. by  $\frac{1}{4}$  ins. by  $\frac{3}{16}$  in.
- D—Cut 2  $\frac{8}{16}$  ins. by  $\frac{1}{4}$  ins. by  $\frac{3}{16}$  in.
- E—Cut 1,  $\frac{1}{4}$  ins. by  $\frac{1}{4}$  ins. by  $\frac{3}{16}$  in.
- F—Cut 1, 1 in. diameter  $\frac{1}{4}$  in. thick.
- G—Cut 1  $\frac{1}{2}$  ins. diameter  $\frac{1}{4}$  in. thick.
- H—Cut 1,  $\frac{3}{16}$  in. dowelling about 7 ins. long.
- I—Cut 1, 9 ins. by 9 ins. by  $\frac{3}{16}$  in.
- J—Cut 1,  $\frac{1}{4}$  ins. by 1 in. by  $\frac{3}{16}$  in.
- K—Cut 2,  $\frac{3}{16}$  ins. by  $\frac{1}{4}$  in. by  $\frac{3}{16}$  in.
- L—Cut 2,  $\frac{3}{16}$  ins. by  $\frac{1}{4}$  ins. by  $\frac{3}{16}$  in.
- M—Cut 1,  $\frac{1}{4}$  ins. by  $\frac{1}{4}$  ins. by  $\frac{3}{16}$  in.
- N—Cut 1, 9 ins. by 9 ins. by  $\frac{3}{16}$  in. plywood.
- O—Cut 1  $\frac{1}{4}$  in. dowelling,  $\frac{8}{16}$  ins. long.
- Boats—Cut 2, 9 ins. by 4 ins. by  $\frac{3}{16}$  in.
- Boats—Cut 1, 9 ins. by 3 ins. by  $\frac{3}{16}$  in. seats.
- Boats—Cut 1, 6 ins. by 2 ins. by  $\frac{3}{16}$  in. heads.
- Boats—Cut 1, 8 ins. by 4 ins. by  $\frac{3}{16}$  in. ply (bottoms).
- Boats—Cut 1, 6 ins. by 2 ins. by  $\frac{1}{4}$  in.
- 6 pieces of wire  $\frac{7}{16}$  ins. long.
- 6 pieces of wire,  $\frac{2}{16}$  ins. long.

and freely, and will be held in its place by small  $\frac{3}{16}$  in. wood washers glued to the spindle.

On the base of the box also there is glued a central washer F in which rests the vertical spindle, the latter having its bottom end rounded and pointed off as shown so that it may turn freely when resting on the wood base.

A little disc of tin or brass put beneath the spindle end will ensure a smooth and easy movement when the top canopy and boats are hung to it.

## The Spindle Axle

The enlarged diagram at the top of Fig. 1 shows some of the parts before being fixed. Take care in fixing the grooved wheels to their respective spindles that they are in alignment, that is, the larger wheel must be fixed at the same level as the spindle of the small wheel otherwise when the belt is put on and the turning motion commenced the vertical spindle will be apt to work out of its socket (F).

The top of box is the same size as the bottom, and while fitting this for its position see that the hole for the upright spindle is exactly over that of the washer F below.

## Fixing the Top

Take off all sharp edges with glasspaper, and allow a clearance for the upright spindle. Fix the top to the sides with screws, roundhead for preference as these can be easily taken out and the top removed in case of any adjustment being required or new belting being wanted inside the box. To form the body of the

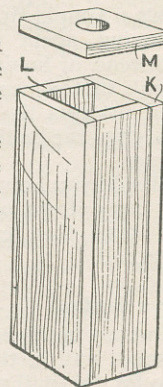


Fig. 3—The centre pillar and top

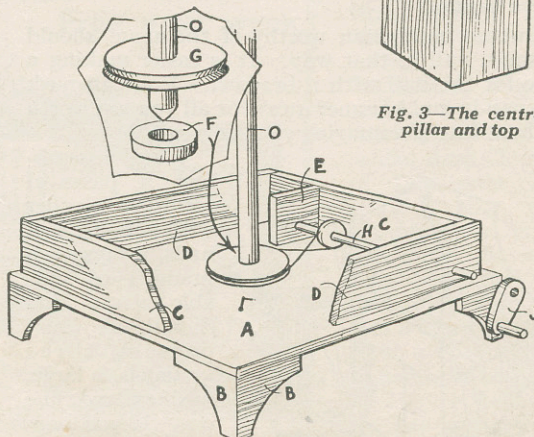


Fig. 1—Parts of base and mechanism



roundabout, four oblong pieces of  $\frac{3}{16}$ in. wood will be required, and will be put together as in Fig. 3, a square top with a central hole for the upright spindle to project through being also cut and fitted.

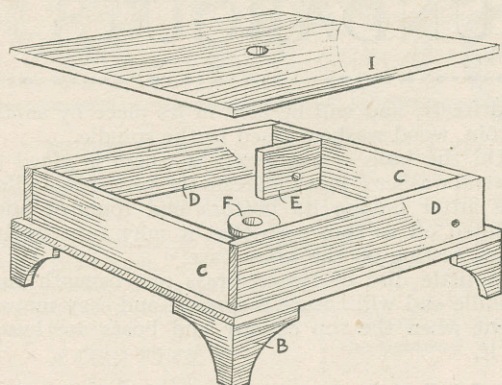


Fig. 2—Constructional detail of the base parts

The whole body when completed will be glued and screwed to the top I of the base.

When all the foregoing work is done, thread the upright spindle through the body, and after making allowance for that portion which goes into the base glue on a washer above piece I, and then round off the top after cutting the spindle to the required length that is, about  $8\frac{3}{4}$ ins.

### The Handle

The crank piece J for the handle should be shaped from  $\frac{3}{16}$ in. wood, and be about  $1\frac{1}{2}$ ins. long and with a short length of dowelling glued in D form the handle. The crank must be securely glued to the driving spindle H.

In next week's issue we shall describe and give instructions on how to make the canopy with its scalloped apron edging and also the swinging boats.

(To be Continued)

## HINTS ON NAILING

**C**RASH! Bang! Wallop!  
"Yarrrow! Oh, wow-wow! Curse that—!"

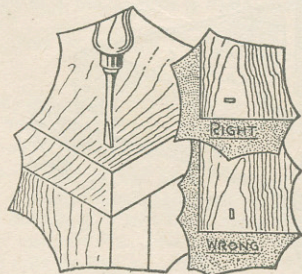
Don't be nervous, boys. It's only poor Dad nailing up a picture. He has, as usual, to hit the wrong nail—the one that grew on his finger! Perhaps it happened to you at one time. If so, here's a simple tip that will prevent such a thing occurring again.

Instead of holding the nail between finger and thumb in the usual way, turn the back of your hand towards the wall or article you are nailing and grip the nail between the first and second fingers.

Should you happen to miss the nail, the hammer will come down on the pads of these two fingers and save that excruciating pain of a broken fingernail.

### Use a Bradawl

But no handyman worthy of the name, should knock a nail in that way. It is easier making a hole for the nail with a bradawl. You can push the nail in and hammer away for all you are worth without fear of damaging your fingers.



When assembling a piece of furniture together with the help of nails, always use a bradawl of suitable size. You should, at least, possess three bradawls, a large, medium and fine one. If you happen to be nailing

very near the end of a board, first press the awl point in as shown by the illustration, then twist it from side to side to cut the fibres of the wood.

Keep the point of the awl as sharp as a chisel. When butt-nailing two pieces of wood together, such as  $\frac{3}{4}$ in. thick stuff, pencil a line down the end just half the thickness, then make the nail holes with the awl half through the piece you will nail on top. To get the best out of the nails, the boring should be done dove-tail fashion.

### In Carcase Work

In all carcase work, flat oval nails should be used, as these do not tend to split the wood when driven in with the grain. Ordinary wire box nails (those with lacerated heads) should never be used in cabinet work, except in putting in interior fillets and plywood backs.

The  $\frac{5}{8}$ in. variety grip the plywood better than panel pins, although the latter are not so conspicuous and serve equally as well.

Cut nails are used mostly in heavy carpentry work and by joiners in putting down wooden floors. Cut nails, by the way, are bluish-black in hue and blunt-pointed to eat into soft wood such as spruce and pine.

### A Bowl Holder

These nails get a powerful grip and are hard to remove. The heads, moreover, are so shaped as to sink into the wood which, after the final clump, somehow manages to arise over the nail head and partly hide it.

It is a good idea to keep your different nails in a wooden trough having compartments with rounded bottoms reaching up to the sides. It is an easy matter to slide—rather than pick up—a nail from the mass.



# NOVEL BATTERY ELECTRIC LAMP

HERE is a novel form of lamp, seen illustrated, which is sure to catch on. There is nothing at all difficult in the construction of the article which, as will be seen, is in the form of an owl sitting on a moon.

The front part is made in one piece from wood  $\frac{3}{16}$  in. thick as indicated in Fig. 1. First cut the wood 11 ins. long by  $6\frac{1}{2}$  ins. wide, and divide the surface for a distance of 7 ins. from the top into  $\frac{1}{2}$  in. squares. The shape of the moon and owl is now drawn from Fig. 1, and carefully cut out with a fretsaw.

## The Base Portion

Make the bottom portion of the front 3 ins. wide by 4 ins. on one side, and  $4\frac{3}{8}$  ins. on the other as clearly shown.

Next cut a piece of wood  $\frac{3}{16}$  in. thick by 7 ins. long by  $6\frac{1}{2}$  ins. wide, mark off into  $\frac{1}{2}$  in. squares, draw the figure of the moon and then cut out with the fretsaw. This piece is the same as that indicated in Fig. 1, only the bottom part and the owl are not required.

This piece when cut is fixed to the back of front piece, spaced 2 ins. by means of two pieces of  $\frac{1}{4}$  in. dowelling 2 ins. long as indicated in Fig. 2. Two sides to make up the battery box are required. The wood is  $\frac{3}{16}$  in. thick and one piece is  $4\frac{3}{8}$  ins. by  $2\frac{3}{16}$  ins. wide, and the other 4 ins. long by  $2\frac{3}{16}$  ins. wide.

We now come to the back of the article which

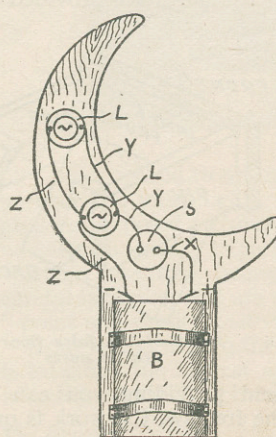
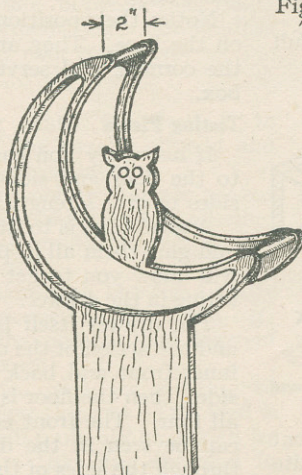
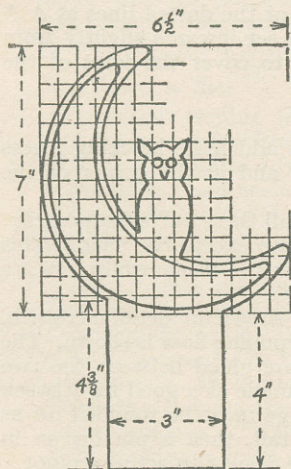


Fig. 1—How to mark out the front contains the electric light equipment (see Fig. 3). The back is made in wood  $\frac{3}{16}$  in. thick and is cut exactly as in the front (Fig. 1), the owl being left out.

The wiring for the electric light is quite simple

and is done in the following manner. The flash lamp battery is indicated by B Fig. 3, and this is fixed as shown by means of

two pieces of metal strip. A small switch is indicated at S, and this is fixed on the inside of the back with the knob projecting out at the back in order to operate the lamps.

Two small lamp holders to take two flashlamp bulbs are indicated at L, and these are fixed on the inside of the back. A short length of wire is connected to the positive terminal of the battery and one of the terminals of the switch, this wire being marked X in Fig. 3.

## Connections to Battery

Another piece of wire marked Y, is connected to the other terminal of the switch and then on to one of the terminals on each of the lamp holders as clearly shown. A piece of the wire is next connected to the negative terminal of the battery and then on to the remaining terminals of the two lamp holders, this wire being indicated by Z Fig. 3.

The two sides of the battery box are fixed in

position and the bottom fixed on, which is a piece of  $\frac{3}{16}$  in. wood cut to size 3 ins. by  $2\frac{9}{16}$  ins. The back containing the complete lighting equipment is fixed in position by means of two or three small screws, taking care to remember to place the two flashlamp bulbs in the holders.

It is quite a simple matter to take the screws out from the back when a replacement of a bulb

or battery is required.

Now a piece of parchment is carefully cut out and fixed over the openings in the moon, and then the article is finished off with coloured enamel as required.



# A MYSTERIOUS MONEY BOX

**H**ERE is a chance to mystify your friends, and possibly to get a little spare pocket money at the same time. A money box is always a fascinating piece of work, but this one is unusually so.

You see, you put 1d. or 1/- if you like(!) into the slot, hear it drop into the box, and when you pull the drawer open at the front it has disappeared!

How is it done? Close the drawer, put another one in and the same thing happens.....Marvelous and mystifying.

Yet it is all quite simple, like most other things when you know how. The box is easily made with some odd pieces of fretwood, and the mechanical device is quite easy.

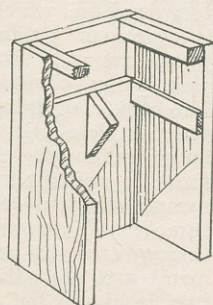
## The Mechanism

All that happens really is that the drawer has a movable floor, and when it is shut the floor slopes downwards towards the back, thus when the money is dropped in it falls on to the floor of the drawer then slides down into the main portion of the box.

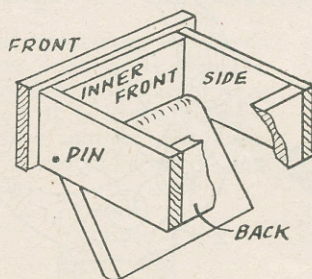
As the drawer is pulled out, however, its floor is brought up flat so that when it is pulled out—not right out, of course—the drawer appears to be quite a normal piece of work.

You must not, of course, pull it right out or the secret will be revealed. If you make a nice fitting piece of work the joints of the floor cannot be seen, and the disappearance of the money is quite mystifying.

All the patterns for the parts are provided full



An interior view from back showing drawer runners

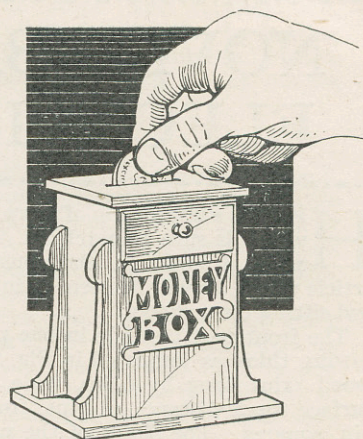


Detail of the false floor and drawer parts

size on page 576 and providing you can cut straight edges with the fretsaw, the work is quite simple. Paste the patterns down to boards of the thicknesses shown, first of all, but notice that some parts are laid in each other for the sake of space.

For instance, there is one pattern only of the floor and back, and in the middle of it is shown the pattern of the floor of the drawer, whilst at the top is the inner front.

Full size patterns are given on page 576



Cut the pattern for the floor of the drawer out from the paper, then paste the remaining piece down and use it as the part for the front. The back is similar to this except that it is a plain rectangle only 3½ ins. long and 2½ ins. wide. It has no opening at the top.

The inner front can be pasted down with the other part because it is cut from the waste wood which forms the opening. Thus you have a plain back and a front with a rectangular opening near the top.

## Main Box

Cut these two pieces out, then the two sides, the top and the base. See all edges are straight and flat, and glue the four together. The sides go between the back and the front, the whole thing standing in the centre of the base. That part will project more at the sides than at the back and front because two little ornamental uprights are glued on.

Notice their position at the dotted lines at A A on the base. They are set inwards slightly from the corners, and serve to cover the joint of the box.

## Testing Pieces

If necessary you can add little blocking pieces to the floor and sides, and in the corner of the sides to give strength.

A good plan is to fit all these parts temporarily, and glue them all in place except the back. This will allow you to get to the inside whilst you are fitting in the drawer.

The drawer itself is shown in detail herewith, and the action of the dropping floor is shown. The inner front and back are glued between the two sides, then the floor is made as a good fit between all four. The front edge must be rounded off as can be seen in the detail, then a pin driven in through the sides of the drawer to act as a pivot.

## Drop Floor

Get this floor to be a good fit, then drill the holes carefully opposite each other. The floor, of course, should drop easily and not stick.

In order that the drawer runs in and out properly, each side has two runners. They are shown



by the dotted lines on the pattern of the sides. Finish the drawer off first before placing these by adding the front.

This is a small piece of  $\frac{1}{4}$  in. wood larger than the size of the drawer itself, and should fit into the opening in the front of the box.

#### Knobs and Runners

Add one of the small knobs (Hobbies No. 80) in the centre, then put the drawer in place and run a pencil mark along inside the box to show the position of the drawer runners.

The lower one is slightly under  $\frac{1}{16}$  in. down from the top and is glued to the sides perfectly horizontal. Then a narrower piece acting as another drawer guide is glued under the top of the box, and of course on the side also.

These two can be clearly seen in the interior detail shown here. Put all four pieces in place, then try the drawer out to ensure it runs nicely. If it sticks, a rubbing of graphite from a lead pencil will help it to work more easily.

#### The Floor Lift

Having got a satisfactory construction of this part, we want to make the floor rise as the drawer is pulled out. This is done by means of a triangular piece B which is glued to project inwards, the

upper corner being in line with the bottom edge of the opening in the front.

A glance at the detail of the interior of the box shows this and how it is put centrally as shown.

Having carefully constructed and tested out the drawer, the back can be fitted on and glued finally in place. You can always get the money out by extracting the drawer completely and turning the box upside down.

Or you can put on a drawer stop so it cannot be pulled right out, in which case you will have to have the back screwed on only in order to be able to extract the money. Such a stop should be added below the back of the drawer itself—or that part cut a little deeper than in the pattern.

#### Overlay Wording

Note in the construction of the drawer, by the way, that the pin head does not scrape the sides of the box. Drive it in carefully and straight with the head below the surface of the wood.

The box is finally decorated with the  $\frac{1}{16}$  in. thick overlay "Money Box," which can be taken out in wood or ivory or similar thin composition.

If you have cut the work out in nice fretwood, stain it and polish it and colour up the overlay on the front to make it stand out strongly.

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## Cutting Shapes in Thick Wood

**W**OODWORKERS, not possessing the usual implements, are often "up against it" when faced with the problem of cutting a shape in thick timber such as  $1\frac{1}{2}$  in. or 2 in. stuff. In respect to the latter, even a bow-saw is almost useless, and the usual plan is to have the material band-sawed or jig-sawed at a local machine shop.

#### Small Tools

Sometimes, however, we cannot afford to go running there or pay for the cutting, so what is a chap to do—give it up as a bad job or wait impatiently for a more favourable day? Well, if you possess a saw, chisel, gouge, spokeshave, rasp, brace and several spiral or centre bits, you can carry on just as if you had a complete machine shop in your little workshop.

#### A Lavatory Seat

Let us assume you are making a new lavatory seat in  $1\frac{1}{2}$  in. mahogany. You have mortised and tenoned or dowelled the four pieces together, levelled them with a plane and marked out the desired shape from the original. You have decided to cut out the outside shape before attending to the central hole, which is correct, so commence by removing most of the waste with a panel saw or cross-cut saw.

Cut spread-out (not acute) V-scallops at "inner" shapes, these and the outside shapes being pared to the pencil lines with a gouge and

chisel. The roughness can then be cleared away with the rasp and spokeshave.

To cut out the central aperture, bore a series of holes (as close as possible and perfectly upright) around the line on the waste side or that piece which will be removed. With chisel and mallet, break the connection at the holes, then trim to the line with the gouge, rasp and spokeshave.

#### Little Cuts

Another useful tip (when cutting outside shapes) is to saw a series of kerfs down to about  $\frac{1}{8}$  in. from the line. The saw kerfs should be about  $\frac{1}{8}$  in. or  $\frac{3}{16}$  in. apart. With an almost flat gouge (if the shaping takes the form of a concave arc), mallet around the line on both sides, then break the waste away carefully and clean up as previously explained.

#### Nest of Saws

But, all this takes time and trouble. The young enthusiast would be wise to buy himself a "nest" of keyhole saws, any one of which can be fitted to a suitable handle or grip. The large blade is exceedingly useful for shaping thick wood. A really useful implement is the double-edge pruner saw.

Hobbies Ltd. can supply you with such a saw for 3/- or 3/6 post free (see page 150 of the 1938 Handbook). These saws have narrow and wide teeth on either side and are ideal for cutting at close quarters. The usual length is about 16 ins.





# Scout Notes and News!



## Waterproofing Your Tent

**T**HERE are many preparations on the market for waterproofing tents but undoubtedly one of the best and cheapest methods is to use boiled linseed oil at the rate of one quart for every six square yards of tent to be covered.

Lay out your tent and rub the oil into it thoroughly with a large paint brush using enough oil at a time to soak the material right through.

After having covered the whole of the cloth in this way, hang it up in a light dry place for a fortnight. Note there is just time to waterproof your tent before camping season starts again this Easter.

## Horses and Cattle

**D**O you know why horses always rise from the ground with their forelegs first and cattle just the opposite? It is an interesting difference yet few know the reason.

Horses used to live in prairies and this enabled them to look over the long grass on scenting danger. Cattle originally lived in forests and by rising on the hind legs first their horns were always ready to defend themselves, while as their heads were low they could look for danger under the branches.

## Do You Know Wood?

**I** WONDER how many of you have seen the advertisement which appears occasionally in "Hobbies" offering eight specimen pieces of wood about three inches square marked for reference, price eightpence post free.

What a fine addition to your clubroom or den these would make if suitably mounted on a real Scouty board.

Order a set at once and set about designing a board to hang in the troop room. The knowledge gained by studying these woods will be interesting and you will find that they will settle many an argument.

## What to Look For

**H**ARES make their "forms" in the fields this month and it is interesting to note that nature in her wisdom allows the young hare to be born with its eyes open while young rabbits have their eyes shut at birth. The reason is that the Leveret being born in the open instead of a burrow is subject to danger as soon as it is born.

Those who collect eggs will be on the lookout this month for the eggs of Peewits, Blackbirds, Thrushes, Rooks, etc. Please remember not to take the eggs

just for fun and if you are a genuine collector only one from a nest is allowable.

The earth will be carpeted with spring flowers—Snowdrops, Crocuses, Daffodils, etc., and some of our early migrants will be on the wing. Cold-blooded creatures begin to move about and grass snakes and adders may be seen basking in the sunshine while the presence of frogs will be detected in most pools by their spawn.

## Saturday Afternoon Scouting

**A**S the days lengthen so shall we be able to put more of the Out in ScOUTing. It is up to all Scouts to set an example with regard to litter and all your tracking games should be done with the aid of nature and not against her.

Make use of the things nature provides, such as twigs, stones and grasses to form your tracking signs. Green wool is also not unsightly and as it is not likely to be seen by outsiders, makes a useful tracking medium. Flowers planted on the wrong stems and leaves on the wrong tree all serve their purpose and are less distasteful to the eye. Below you will find the idea and you will soon work out a few ideas for yourselves.



## Alphabetical Words

**H**ERE is a fascinating little competition which will enable you to win a prize and at the same time can form a novel Patrol Competition. If you send in a Patrol entry let me know and the prize will be a suitable one.

The object is to make as many words as possible using only isolated letters in the alphabet. You will be surprised when you begin, as you will find many curious combinations. To ensure that you have got the idea here are some examples:—

NRG—Energy.

T—Tea.

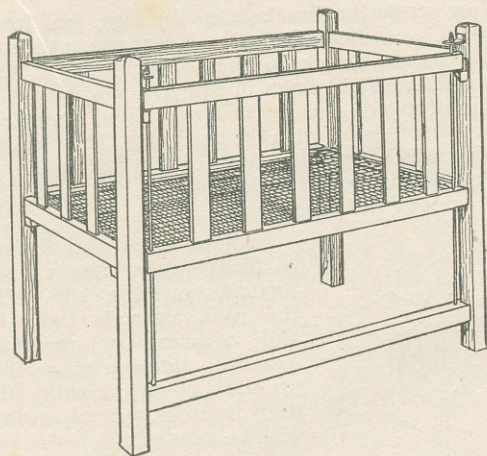
XPDNC—Expediency.

Now have a go and see how many you can make. Only words in a Standard Dictionary to be used and send your entries in to Scout Competition, Hobbies Weekly, Dereham, Norfolk, not later than Saturday, March 12th.

A prize for the best, of course.

The Skipper





## A DOLL'S COT

the mortises  $\frac{1}{4}$  in. each side of the division lines. The mortises can now be easily chiselled out.

Cut the required number of slats and trim the ends of each to leave a short tenon  $\frac{1}{4}$  in. by  $\frac{1}{2}$  in. and  $\frac{1}{4}$  in. long.

By cramping up a number of slats together the saw cuts can be made on several at a time, in fact the tenons could be cut on the lot at one operation. Glue slats in the rails and leave for awhile. In the meantime cut the bars B.

These are notched to fit halfway up the lower end rails, and are screwed to the rails from beneath. Fix these directly after the rails and legs are glued together to bring the whole square. On these bars the cross bars C will rest. Cut these the shape seen in Fig. 4.

One will afterwards be fixed across with screws at one end of the cot, the other will be adjustable with screw bolts, to stretch the mattress tightly. Cramp it temporarily to the right-hand lower end rail and bore through both rail and bar two  $\frac{1}{4}$  in. diam. holes, as seen in Fig. 2.

### CUTTING LIST

	Length	Width	Thickness
Legs (4) .. ..	1ft. 6ins.	1in.	$\frac{1}{2}$ in.
Side rails (2) ..	1ft. 11ins.	1in.	$\frac{1}{2}$ in.
Drop side rails (2) ..	1ft. 9ins.	1in.	$\frac{1}{2}$ in.
End rails (4) ..	1ft. 2ins.	1in.	$\frac{1}{2}$ in.
Vertical slats (18) ..	7ins.	1in.	$\frac{1}{2}$ in.
Rail A .. ..	1ft. 11ins.	1in.	$\frac{1}{2}$ in.
Bars B (2) .. ..	1ft. 11ins.	1in.	$\frac{1}{2}$ in.
Cross bars C (2) ..	1ft. 0in.	1in.	$\frac{1}{2}$ in.

**T**HIS good-sized model cot would give pleasure to any young girl as it is a replica on a small scale of the real thing. It would look nice made in oak, or stripwood, but could be made in deal if a cheaper material is desired. The dimensions and general construction will be gathered from Figs. 1 and 2.

First get out the legs, cutting them to correct length, and marking out the mortises for the rails  $\frac{3}{8}$  in. by 1 in.

Note that one side is left open, to be afterwards fitted with a loose side, made to drop down as required. The face of the legs on this side, therefore, will not need mortises except near the bottom, for rail A. The tops of the legs should be neatly rounded off.

### The Rails

Cut the rails, and saw a tenon at each end to fit the mortises in the legs. The tenons on the rails of the fixed side will need mitring to 45 degs., as in Fig. 3, also the tenons on the end rails to correspond, as they meet together in the mortises. The end rail tenons for legs on the open side will, of course, not be so mitred as they have no rails to meet. This also applies to tenons on rail A.

The inner edges of all rails will now be marked off for cutting the shallow mortises for the vertical slats. These mortises are  $\frac{1}{4}$  in. by  $\frac{1}{2}$  in. and  $\frac{1}{4}$  in. deep, spaced at 3 in. centres.

Just run double gauge lines,  $\frac{1}{4}$  in. apart, down the rails, divide into 3 in. divisions and mark off

Real spring mattress material is likely to prove difficult in getting on so reduced a scale, but a good substitute is wire gauge, as supplied for safe making.

Cut this  $\frac{1}{2}$  in. wider than the length of bars C, and the full length between the end rails, plus say 1 in. Bend over a  $\frac{1}{4}$  in. each side and hammer underneath to form an edge free from sharp wire ends, then bend over  $\frac{1}{4}$  in. of each end.

This  $\frac{3}{4}$  in. should be doubled and tacked to the bars C, as shown in Fig. 4. Now screw one bar C to bars B from beneath.

Get a pair of  $\frac{1}{4}$  in. by 2 in. hexagon headed bolts,

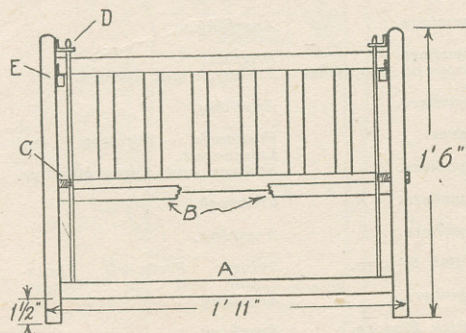


Fig. 1—Details of the long sides

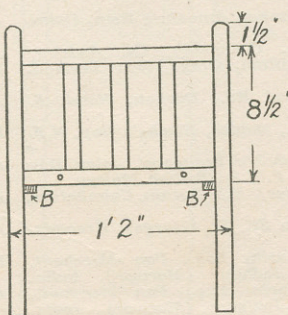


Fig. 2—Details of the ends

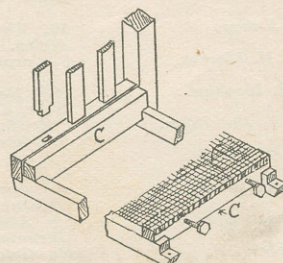


Fig. 4—Mattresses and end rails



complete with nuts and washers. Push these through the holes in end rail and bar C and tighten up to stretch the gauze. Get the gauze reasonably taut, but don't strain unduly.

For the necessary drop side fittings, a pair of steel or hard brass rods,  $\frac{3}{16}$  in. dia. will be required, together with a few square inches of stiff sheet brass, about  $\frac{1}{16}$  in. thick, or a little more will not be amiss.

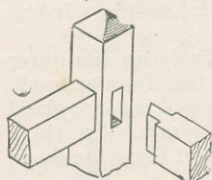


Fig. 3—Leg and rails

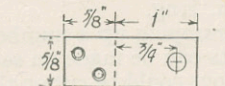


Fig. 5—The brass brackets

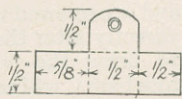


Fig. 7—Shape of the catch



Fig. 6—The shaped brackets

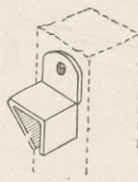


Fig. 8—The catch in place

For the rods, ordinary thin stair rods will suffice. File off one end of these to reduce them to a length of 16 ins.

From the pattern at Fig. 5, cut a pair of brass brackets, drill, and bend to right angles along the dotted line, as in Fig. 6. Lay these temporarily on rail A, in the angle between rail and leg, insert a drill bit in the hole and drill through into the rail about  $\frac{1}{2}$  in. deep.

Now screw the brackets to the legs,  $\frac{1}{2}$  in. from the top, as indicated at D. Insert the rods and solder to the brackets. The lower ends of the rods will enter the holes in rail A.

The drop side consists of two rails with vertical slats to correspond with the fixed side. The length of the rails should be short of the full width of the open side by a full  $\frac{1}{4}$  in. so as not to rub the legs or foul the catches.

Drill holes near each end to fit the rods, remove the brackets on the legs, slip the rods through the rails and rescrew in position. The drop side can now slide up and down at will. To keep it up, a pair of catches will be needed.

These are cut from similar brass sheet to the brackets to the pattern given at Fig. 7, and bent up as in Fig. 8. Fit these, one each side, to the legs with a screw, rather loosely, at E. The under edge of the top rail of the drop side rests upon these, and only drops when they are pressed backwards with the fingers.

This completes the cot, unless it is desired to fit small castors to the legs. Stain the wood and give a finishing coat of varnish.

## HOBBIES LEAGUE CORRESPONDENCE CLUB

These Members of Hobbies League would like to get in touch with other readers and so form pen friendships which will undoubtedly prove interesting to all. In this way, one has a wide circle of friends and increased knowledge in people and places, not only in one's own country, but all over the world. Members should write direct to the addresses given, stating their full address and age, adding any hobbies in which they are interested. Hundreds of members have already taken advantage of this Correspondence Club in this way and others who wish to do so should notify the Registrar with the necessary particulars.

NAME	ADDRESS	WANTS FRIENDS	INTERESTS, Etc.
H. Sinclair.	115, Albany Rd., Stanmore, Sydney, N.S.W. Australia.	Anywhere.	Anything.
B. W. Gibson Barden.	Teak Lodge, Mupun, Moulmein, Burma.	British Isles or any British Colony.	Fretwork and Stamps.
H. H. A. Hamid.	Clifford School, Kuala Lipis, Pahang, Malaya.	Anywhere.	Stamp Collecting and Photography.
Y. A. Nong.	Malay Hostel, Kuala Lipis, Pahang, F.M.S.	Anywhere.	Stamps, Scouting and Photography.
Mac Ezeme.	P.O. Box 14, Enugu, Nigeria, W. Africa.	England, Holland, India, Egypt, S. Africa, America, N. and S. Australia, Germany and Italy.	Stamps and Sport.
Miss H. Hill.	Doonside Rd., Doonside, N.S. Wales, Australia.	Anywhere.	Stamps and Snaps.
F. Dickison.	25, Marshall St., Off Pitsmoor Rd., Sheffield, 3.	Anywhere.	Anything.
W. N. Iko and D. U. Maduka.	Methodist Mission, Amaokwe Item, Ovim, N.E.R., B.W. Africa.	Anywhere.	Anything.
Seamus Curran.	1, High St., Carnlough, Co. Antrim.	Europe or Asia, either sex.	Fretwork and Stamps.
J. Dignan.	Union St., Milton, Otago, New Zealand.	Anywhere.	Anything.
R. Fraser.	36, Blythwood Rd., Durban, Natal, S. Africa.	France.	Fretwork, Wireless and Languages.
W. H. Mercer.	5, Carnell St., Napier, Hawke's Bay, N.Z.	Anywhere.	Stamps and Corresponding.
Md. Ibrahim.	295, Haji Wahab's Kampong, Jalan Raya West, Klang, F.M.S., British Malaya.	Anywhere.	Fretwork.
L. K. Natarajan.	"Krishna Nivas," R.S. Puram, Coimbatore, S. India.	Anywhere.	Anything.
J. A. Pitt.	No. 40, Green St., St. Georges, Grenada, B.W.I.	British Empire.	Stamps, Fretwork, Photography and Coin Collecting.
Abdul Ghani.	s/o Abdul Karim Esq., Pan Merchant, Ghasmondi, Jodhpur (Marwar), India.	Anywhere.	Anything.
Usman Ghani.	s/o Abdul Karim Esq., Pan Merchant, Ghasmondi, Jodhpur (Marwar), India.	British Empire.	Anything.
Nazeer Ali.	c/o Gafoor Bux, Asgar Ali, Ghasmondi, Jodhpur, Marwar, India.		



# LADY'S SEWING WORKSTAND

**T**HIS would make a very nice present for any lady friend or member of the household. It is a comfortable little table to work on, while the interior box provides accommodation for work and materials. A tray drawer is also provided for cottons, wools, etc. The table top is divided into two halves to draw out sideways, as in sketch, for access to the box.

All necessary dimensions can be got from Figs. 1 and 2, showing a front and side elevation, while details of interior construction will be gathered from Fig. 3.

## Grooved Legs

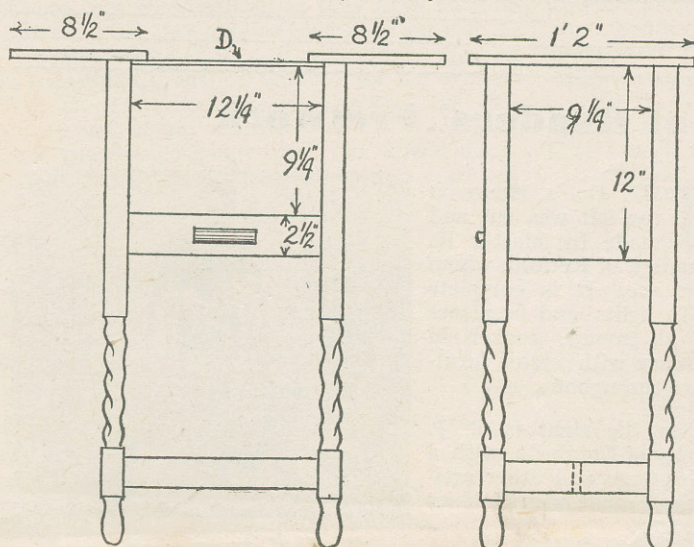
The legs, 28ins. high and 1 $\frac{3}{4}$ ins. sq. are grooved for the sides of the box,  $\frac{3}{8}$ in. wide, and  $\frac{3}{8}$ in. deep. Grooves for three sides are 12ins. long and grooves for the front side 9 $\frac{1}{4}$ ins. long.

This grooving can be carried out for you, when ordering the legs, for a small fee and saves a lot of trouble.

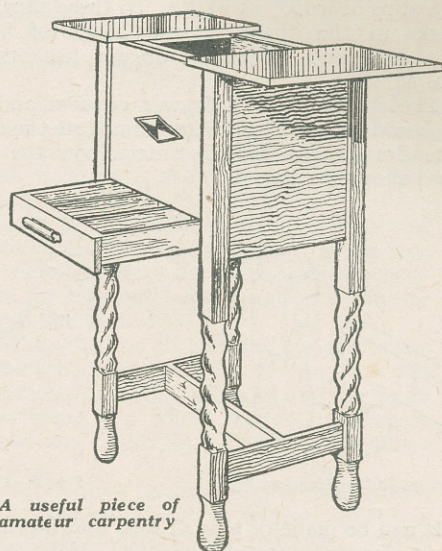
The front of the box is shorter than the ends and back by 2 $\frac{1}{2}$ ins., to leave space for the drawer. When cutting the box parts note that  $\frac{3}{8}$ in. extra each end must be added to the dimensions given for the amount entering the grooves in the legs. For instance, the ends shown 9 $\frac{1}{4}$ ins. should actually be cut 9ins., for the reason stated. The back of the box, not shown, is the same depth as the front and drawer combined.

## Rails

The legs are connected together by side rails near the bottom, and these are joined by a central



Figs. 1 and 2—Front and side view with dimensions



A useful piece of  
amateur carpentry

rail across. Side rails are tenoned and cross rail notched in, as in Fig. 4.

Framework can now be glued up and care should be taken to tap the box parts well into their grooves.

As both front and back parts are  $\frac{1}{4}$ in. short of the top of the legs, the space must be filled by a strip of oak,  $\frac{1}{4}$ in. by  $\frac{3}{4}$ in., as shown at D. The outer edges of these strips are quarter rounded to look neat, and they are fixed to overlap on the inside just  $\frac{1}{8}$ in. Fig. 3 shows this clearly and their purpose is to aid the sliding movement of the tops, as will be seen later.

## Support Fillets

Referring again to Fig. 3, level with the front of the box and in line with the drawer opening, glue lengths of  $\frac{1}{2}$ in. sq. fillet round the interior to support the bottom of the box. These are shown at A. On these the plywood bottom is nailed. Pieces must be cut from the corners of the bottom to clear the inside angles of the legs.

Along the bottom of each end piece of the box, glue  $\frac{1}{2}$ in. by

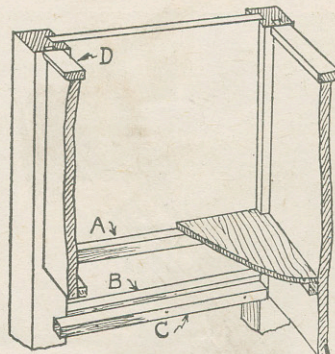


Fig. 3—Cut-away view showing construction of box cabinet



rin. slips of wood, as at B. To these slips, which pack up the space between ends of box and legs, glue and screw the drawer runners, C, of  $\frac{1}{2}$  in. sq. fillet.

The space between drawer runners and fillets A should be just zins. to accommodate the drawer. The drawer can be constructed on the simple lines shown in Fig. 6.

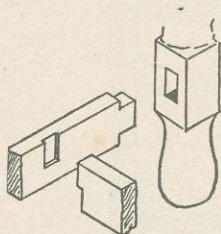


Fig. 4—Rails joined to legs

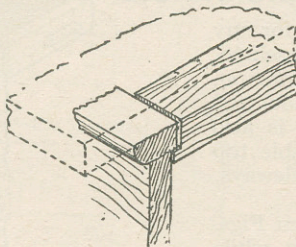


Fig. 5—The sliding top strips

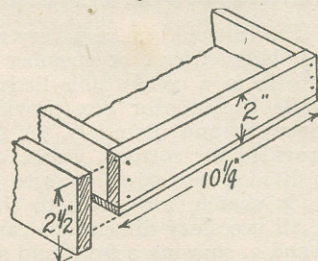


Fig. 6—The drawer construction

It can be made of pine or deal and faced with a piece of oak to match the box. Make it a nice easy fit and partition off for the cottons, etc. A pull handle is fitted to the drawer.

The table top is made in two halves, as in Fig. 1, which shows both halves extended. If plywood is used for these the edges should be masked with a moulding or plain slip, glued and pinned round.

If solid wood is used, neatly round or mould the edges (except the meeting ones) and let the grain run lengthwise.

#### The Sliding Top

To enable the top to slide outwards, cut two strips of rin. by  $\frac{3}{4}$  in. wood, 10 $\frac{1}{2}$  ins. long. Rebate the ends  $\frac{1}{4}$  in. by  $\frac{1}{4}$  in. so that they can slide along the box under the top slips, D, as in Fig. 5.

These pieces are now screwed to the underside of the tops, one to each half. Fit level with the meeting edges and central of course. The dotted lines in Fig. 5 show position of top and sliding

slip respectively in quite a clear drawing.

Unscrew the slips, lay the tops in position on the box and rescrew the slips to them. Both half tops can now be drawn sideways as required.

Punch all nails down and fill up holes with plastic wood or stopping. The plainness of the front of the box could be improved by gluing these to a wood ornament, say a diamond, or

perhaps a thin fretted overlay. Apply a coat of stain and finish with varnish or polish.

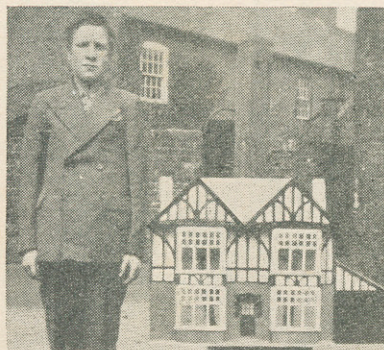
#### MATERIALS REQUIRED

	WOOD		
	Length	Width.	Thickness.
Box front .. ..	1ft. 1in.	9 $\frac{1}{2}$ ins.	in. oak.
Back .. ..	1ft. 1in.	11 $\frac{1}{2}$ ins.	in. oak.
Sides (2) .. ..	10ins.	12ins.	in. oak.
Top (2) .. ..	8 $\frac{1}{2}$ ins.	14ins.	in. ply.
Sliding bars for top (2)	10 $\frac{1}{2}$ ins.	1in.	in. oak.
Bottom .. ..	1ft. 1 $\frac{1}{2}$ ins.	10 $\frac{1}{2}$ ins.	in. ply.
Outer drawer front ..	12 $\frac{1}{2}$ ins.	2 $\frac{1}{2}$ ins.	in. oak.
Inner drawer front ..	11 $\frac{1}{2}$ ins.	1 $\frac{1}{2}$ ins.	in. deal.
Sides (2) .. ..	10 $\frac{1}{2}$ ins.	1 $\frac{1}{2}$ ins.	in. deal.
Back .. ..	11 $\frac{1}{2}$ ins.	1 $\frac{1}{2}$ ins.	in. deal.
Bottom .. ..	12 $\frac{1}{2}$ ins.	10 $\frac{1}{2}$ ins.	in. ply.
Lower side rails (2) ..	10 $\frac{1}{2}$ ins.	2ins.	in. oak.
Cross rail .. ..	1ft 1 $\frac{1}{2}$ ins.	2ins.	in oak

#### INCIDENTALS

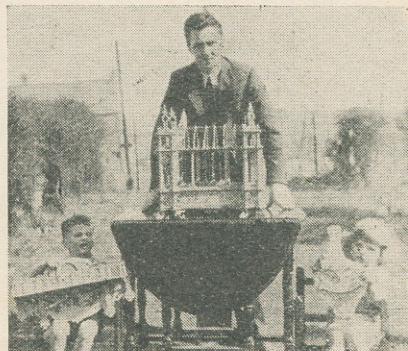
4 legs, Hobbies No. 521B.  
6ft.  $\frac{1}{2}$  in. sq. stripwood fillet.  
2ft.  $\frac{1}{2}$  in. by 1in. fillet.  
Fretwood—10 $\frac{1}{2}$ ins. by 13ins. by  $\frac{1}{4}$  in. oak for slips D and drawer partitions.  
Drawer handle, Hobbies No. 238.  
Diamond ornament No. 206.

## Two snaps of Readers' Fretwork



THE Doll's House on the left was cut and made by Master K. Bradley of Retford, whom you see. It is complete with lights and fireplaces in all rooms, cooker in kitchen with sets of furniture throughout.

On the right is T. J. Kelly of Drogheda, with a Bird Cage and other articles all made from Hobbies designs.





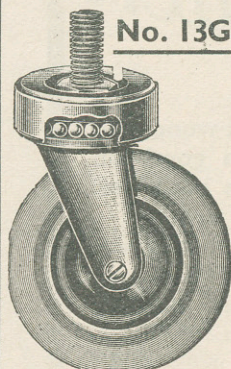
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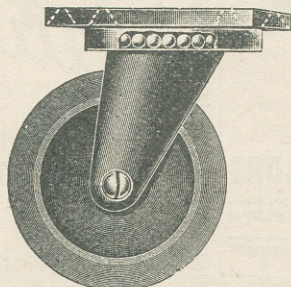


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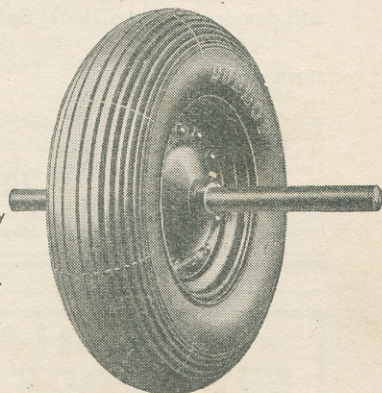


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Ball-bearing Crown : Many other  
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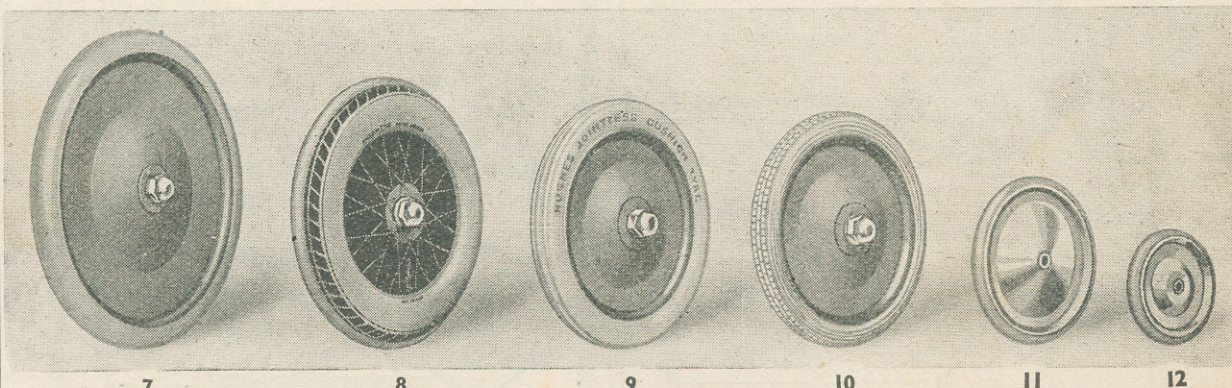
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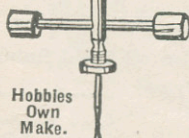


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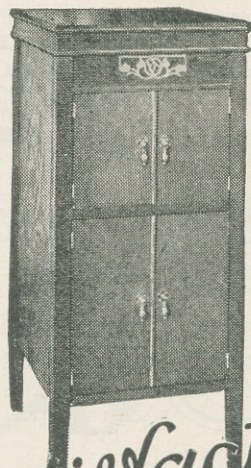


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# photography

## BUYING SECONDHAND CAMERAS

**I**F you are one of those fortunate persons to whom money is not a first consideration it is decidedly better to buy a new camera, as any defects that arise can be referred with confidence to the makers.

But for people not so blessed, the secondhand market, private or otherwise, is a great boon. For here, instruments not a wit worse than the day they left the factory, are often offered at prices round one half or even a third the original cost.

Their appearance in the world of "secondhands" is no reflection on merit. New cameras with added refinements are continually being put on the market and these are snapped up by workers with means. Their old instruments (in perfect condition) are taken as part payment or sold at low figures.

### Reasons for Change

Or again, workers have for one reason or another had to give up photography and sell privately. Unwanted gifts or a change of interests also account for cameras perfect in every respect appearing at prices that cause the uninitiated to think that there must be "something wrong somewhere."

Faulty and badly worn instruments do, of course, find their way on to the market and the greatest trouble usually experienced by the novice is to recognise a good from a faulty camera. That is, to be able to differentiate between real faults and merely poor adjustment, and not confuse shabbiness with definitely poor condition.

### Four Points to Note

A second trouble (or really the first) is to visualize a camera from the usually clipped and somewhat technical advertisements.

Normally there are four points that are needed to describe a camera (1) size of pictures (2) whether film or plate (3) lens aperture—whether f4.5, f6.3 etc.—and (4) shutter speeds.

These points are fundamental, but for a really adequate description these need amplification, e.g., if camera is "plate," the number and type of plate-holders must be known.

Supposing, as a novice, you are desiring to purchase a camera, the first thing to be decided is the picture size. This will probably be settled by some particular snap-size that has appealed in batches shown by friends, but it should be remembered that the  $3\frac{1}{4}$  in. by  $2\frac{1}{4}$  in. film is one of the most easily and cheaply obtained rolls at the moment.

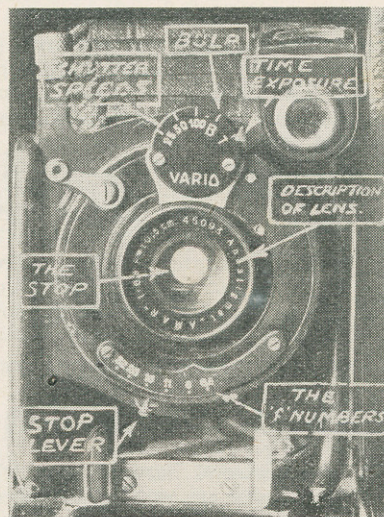
Plate-cameras require plate-holders to be carried about with them and so are comparatively weighty, but they are the most useful if your work

is to be mainly odd snaps. With them, after having made an exposure, the picture can be developed individually; with a film camera the whole six or eight exposures must be made before development.

### Look to the Lens

Lenses vary a lot in quality and type but generally speaking the smaller the "f" number (marked in the front) the better the lens. "Anastigmatics" give the most sharply defined pictures. Most lenses below f 6.3 are anastigmats although this may not be stated.

The f number is broadly an indication of the amount of light that a lens lets through to the



film when opened to its widest extent—the *less* the number the more light. Thus an f 4.5 lens will give well exposed pictures on a dull day that would be quite impossible to an f 8.

Bigger aperture lenses however require more careful focussing and are not so handy for the just "point and press" methods of working.

However, if even quite nominally serious work is intended the biggest aperture lens that can be afforded should be obtained.

### The Shutter

Shutters vary also—for average snap-work one that gives  $1/25$ ,  $1/50$  and  $1/100$  secs. with adjustments for making time exposures will do quite well, but it should not be imagined that it will be possible to get T.T. riders at speed with this type of shutter.



For speed work a "focal plane" shutter is needed that will give exposures up to 1/1,000 sec.

If in an advertisement of a camera a trade-name is mentioned it is good to try and see a maker's catalogue where a whole wealth of detail (with probably an illustration) will be given that is quite impossible in the advert.

#### Examine the Camera

Having decided upon a camera, the next thing is to see it on some form of approval basis, no reputable private seller who has confidence in his camera will object to this—given that the buyer is also willing to give some sort of reciprocal guarantee: deposit systems, of course, effect automatically this mutual security. Secondhand camera firms usually require a full deposit to value, against about a week's approval, but the money is quite safe and is returned if no sale is effected.

Once to hand a camera should be examined, first for any damage that may have taken place in transit. If everything is all right (and it generally is) the method of packing should be noted for return if necessary and an examination can then be proceeded with.

#### Shutter Speeds

Open the camera up and test the front (which holds lens) for rigidity; if shaky or leaning back this is a bad fault. Run the shutter through its various speeds, note by looking through the back, lens to light, if the speeds obviously vary. If all appear about the same something is wrong.

Test with the pointer at T; this is "time," and the shutter should open at the first click and remain open till the trigger is pressed again. Also try "bulb" (pointer at B). Here the shutter remains open while pressure is kept on the trigger and closes when the pressure is removed.

See also that the stops are working well.

Now check the bellows for pinholes, by putting a wired-up flash-bulb inside. Examine in the dark and pinholes (if any) will show up as minute points of light.

#### Other Items

Run over all small items such as catches for back, winding-key, pressure springs, etc., and then do the most important thing of all—put in a film or plates, and take a few snaps, under the most varied conditions possible, such as bright sunlight and the various speeds.

This is a precaution often neglected, but which is an important part of any test as it may show up some defect otherwise unobserved. It is not wise to accept submitted printed as typical work of the camera as, while sent in good faith, they may have been taken before some defect arose.

One of the test pictures should be a fairly long time exposure as light leakage may become apparent in a time exposure that a snap does not reveal.

#### Settle the Bargain

Having decided whether the camera is suitable or not the deal should be completed at once, the camera being returned carefully packed, or the purchase confirmed.

Purchasers usually have the chance of the best bargains dealing privately with a seller, but on the other hand cameras from secondhand marts have been overhauled by experts and are in perfect condition.

There is no real claim on a private seller once the deal is clinched; secondhand firms however usually issue some sort of guarantee and are very considerate if anything untoward takes place immediately after purchase.

---

## A Simple Chemical Barometer

THOSE little pictorial barometers which you see in fancy shops are wonderfully accurate, and popular, but very few people know how simply they can be made. It is just a question of immersing the paper in a solution which responds to the change in atmospheric conditions. This is the solution used:—

Cobalt chloride ..	..	$\frac{1}{2}$ ounce.
Sodium chloride ..	..	$\frac{1}{4}$ ounce.
Calcium chloride ..	..	40 grains.
Gum arabic ..	..	$\frac{1}{2}$ ounce.
Water ..	..	2 ounces.

These chemicals are quite cheap, but as you only want small quantities of each, it will be better to ask your chemist to make up the solution for you.

When this has been done, see that all the crystals are thoroughly dissolved, and pour out as much of the liquid as you are likely to need into a photographic dish, or failing that a soup

plate will do just as well. Place the paper which you are going to treat, into it, and allow it to remain there for about five minutes. Then take it out and hang it up to dry, by pinning one corner.

When it is quite dry, it is effective for use as a barometer, but as you will probably wish to make the idea a little more decorative, here is a suggestion.

Secure a large picture of a girl, and shape out a piece of the treated paper, for her dress, but do not stick it on the picture, except along a narrow edge at the top, otherwise you will damage the effectiveness of the solution you have used. Or you may cut slits into the picture, and fold ears of the special paper through them.

Now when the girl's dress is bluish, it will be a sign of fine weather, but if changeable, wet weather may be expected. Very stormy weather is foretold, by the dress being a decided pink.



# The EDITOR'S NOTES



**N**OW then, what will you do first about this week's issue? Make the Novelty Money Box, try to solve our Crossword Puzzle, set about a Punch Ball for your physical fitness, or attempt a Chemical Barometer. You see what a variety there is, do you not? And really the pages are never enough to get everything in every week, because it always worries me—the amount of really good stuff I have to hold over. There is one consolation, that it appears either next week or the week after, so readers are always sure of having a olly good twopennyworth.

**W**HEN you think of it, you fellows should be really awfully happy making and doing all these things. There is no other book, you know, which tells you so much to make handy-men of you! No wonder grateful readers are always writing to me saying "Thank You" and asking my advice on all sorts of things. Why quite recently I heard from one who is making a collection of named varieties of human hair, and asked if I could spare him a few locks! Truth, really—the reader resides in Canada, and I am wondering if that is a new type of craze like autographs or finger prints!

**A**S promised, you have the first of our "hobby" Crossword puzzles this week. The solution will be given in our next issue, but I know most of you will spend a happy half hour sorting out the clues for yourselves. Other Puzzles of a similar character will follow regularly.

**H**AVE you ever given a thought to the number and variety of wheels which are in use in our everyday life? Just go over it in your mind, and you can count hundreds quite easily. The use of wheels was probably one of the first discoveries ever made for even our earliest archaeological excavations reveal a knowledge of them. But what a variety today! Why, a glance in your own watch will reveal about a dozen. And the trouble often is that when you want a

wheel for a special job you do not know where to go. Particularly for such things as pedal cars, wheelbarrows, handcarts, small carriers, etc., so I am pleased to call your attention to an advertisement of them in this issue. Next time you want wheels remember the address. Or better still write now for an illustrated leaflet and you will have the address always handy.

**T**HE end of this week (March 5th) marks the opening of the Annual Hobbies Sale, in which it will pay every reader to be interested. A special Sale List has been prepared giving hundreds of real bargains where you can save money by purchasing now. These lists have been sent out to most customers on our mailing list and will arrive before the Sale commences. If you do not receive a copy you can obtain one free on request—and believe me it is well worth having.

**F**URTHER to my recent note about the use of cellophane for making small slides, a reader—E. D. Kingston of Hull—suggests that the transparent material on the large tins or packets of cigarettes (50 or 100) is better than that on the small packets. It certainly has a larger flat surface, but he also is of the opinion that it is better for taking the ink.

**I**wonder how many have thought of collecting buttonhole badges? Because when you think of it there must be a tremendous variety issued. Of course there is the Hobbies League Badge to start with and other sources are football clubs,

games clubs, works clubs, church clubs and so on all of which have a distinctive little enamel badge. There is one keen collector I know in Weymouth who has already 150 of them. Although still at school Basil Cloutman of Dorchester Road worked this whole collection up himself. The other boys help him when they can, and, of course, if he sees a new one attached to a coat worn by someone in the street he is very keen until he has secured one.

The Editor

## Design for this BALCONY WALL BRACKET

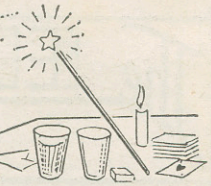
Free next week







# FUN AND PUZZLE



## MUDDY GROUND

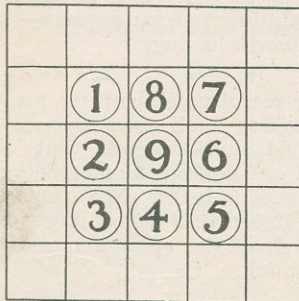
Hotel Visitor (at breakfast): "Waiter, this coffee tastes remarkably funny."

Waiter: "Well, sir, it was ground only half an hour ago."

Hotel Visitor (fed-up): "I see, it was ground a few minutes ago, and now it's mud."

## A COIN TRICK

Draw a square and divide it into twenty-five smaller squares, as shown in the diagram. Then put coins or draughts in the nine central squares. What you have to do is to get rid of all the coins except one by jumping. You



are allowed to jump not only diagonally, but vertically or horizontally as well. The coin that you jump over is immediately removed from the board. There is one proviso; you must leave the final coin in the centre square. The solution is given at the foot of this column.

What is it we often ask people to do, yet nobody has done it?

*Stop a minute.*

What is the difference between a lady and a postage stamp?

*One is a female, the other is a small fee.*

Why is a blacksmith a dissatisfied man?

*He is always striking for wages.*

## SOLUTIONS

The answer to the clock puzzle is 156 times, for you must not forget that it goes from one to twelve, twice.

The moves in the square and coin trick are as follows. Start with 9 and jump over 4, 5, 7 and 1. Then go to 3 and jump over 2. Now take 6 and jump over 8 and 3. Follow this by jumping 9 over 6.

## A STRIKING CLOCK

A clock strikes the hours only. How many times does the striker hit the gong in the course of a complete day? Turn to Column 1 (foot) for the correct answer.

\* \* \* \*

What kind of tea makes one's head the lightest?

*Any tea.*

Can you tell me what is that which nobody wants and nobody likes to lose?

*A lawsuit.*

How would you know which is the left side of a plum pudding?

*It is the side which is not eaten.*

\* \* \* \*

## EXAMPLE!

An orator of decidedly extremist views was holding forth to the crowd from a soap-box in the park. "Why shouldn't YOU have fine motor-cars like those idle-rich over there—you're as much entitled to them as they are. Why don't you rise up and claim what is as much yours as their's?" Voice from back of crowd, "Hi! Guv'nor, did you leave your bicycle by the railings?" "Yes, my man, I did," came the reply. "Well," said the voice, "One of the blokes wots been a listenin' to you has just pinched it."

\* \* \* \*

Why is your nose in the middle of your face?

*It is the scenery.*

What does an artist like to draw best?

*His salary.*

## OF COURSE!

"Julius Caesar didn't have a haircut for ten years."

"I didn't know he was eccentric."

"He wasn't, he was bald."

## MORE "HOWLERS"

Civil war means that people fight politely with themselves.

A meteor is a machine that mother puts her pennies into. A "flaming meteor" is what father calls it when it's dark.

Eddystone was the inventor of electric light.

The ancient Britons died themselves blue and lived in rude huts.

A sceptic is a kind of poison.

## A BARGAIN

He was a very little urchin, and he peeped over the chemist's counter and demanded "three-pennorth o' laudanum."

"What do you want three penny-worth of laudanum for?" said the chemist, mindful of the regulations.

"Tuppen'th," was the laconic reply.



## ICE-CREAM WANTING

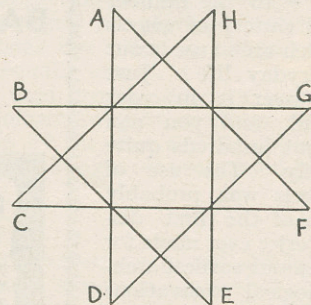
Arriving home from school, Bobbie remarked to his mother: "I met a poor little boy, coming home from school, who had never heard of ice-cream, mamma."

"Indeed! And what did you say to him?" said his mother.

"I said I'd nearly forgotten it myself."

## THE STAR TRICK

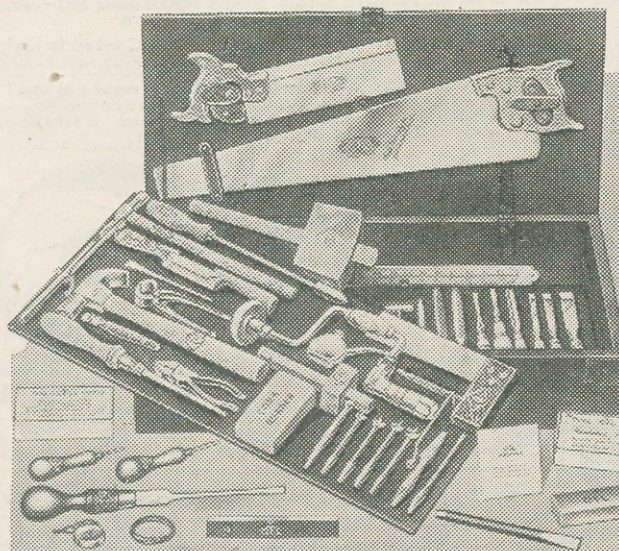
Take seven coins, place one of them on any letter you like, then run it to the other end of either of the straight lines radiating from the point and leave it there. The trick is to do this with the remaining six coins, always



starting from an unoccupied point, until the seven coins are placed. The solution is to run the first coin to any point you like, and then run the second coin to the starting point of the first coin. For example: D to A and then G to D, B to G, E to B H to E, and so on.



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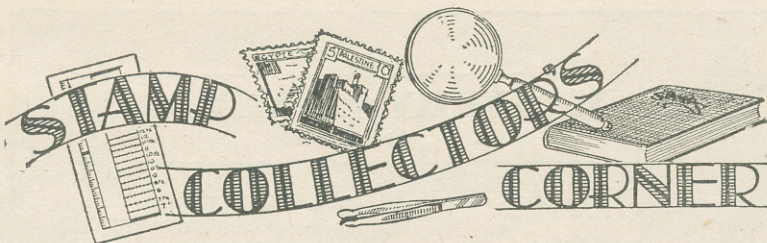
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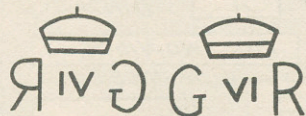


## NOTES ON WATERMARKS

WE have recently had a series of short articles which were written especially for the beginners. If they appealed to you or in other words if you are a beginner, do not think that because this article is entitled *watermarks* it is too deep for you, and so pass it by. You, as well as the slightly more advanced, will find it of interest.

Unfortunately many people who collect stamps will not be bothered with this important aspect of the hobby. The type of paper, perforations and watermarks are all too much for them and really one can only suggest as a reason—laziness. Forgive the writer, but ask yourself the question if you do not happen to be one who does take account of these important considerations.

Suppose we start at the beginning. A watermark is a device



or pattern in the substance of the paper produced during manufacture. This is, of course, a safeguard from forgery, because the watermarked paper means that if anyone wishes to forge stamps they have to prepare special paper as well. The more that has to be done, the more men will have to be employed, and consequently the greater the chance of detection, not to mention the greater the cost.

By carefully checking the amount of paper made, and seeing that only just sufficient for the number of stamps to be printed is given to the printer, the better is the chance of preventing the trouble.

First of all to see the watermark, examine the back of a block of the English current stamps (unused) and you should be able to see the device as shown in the first illustration many times. So from the front this would appear correct, as shown in the second illustration.

Since this device is seen many times and occurs from twice to

three times on each stamp, it is termed a multiple watermark. If the device was only seen once on each stamp then it would be a single watermark.

Sometimes it happens that the watermark is so large that it cannot be got on one stamp. There has thus to be overlap and only a small portion occurs on the specimen examined. Such an example is the  $\frac{1}{2}$ d. stamp of 1870 Great Britain.

This is the small (about half size) stamp which is fairly common. In this case the watermark was 'half penny' and this word extended over three stamps. If you have a copy of this stamp see if you can identify which part of the word is watermarked on your specimen.

The next thing to remember is that you cannot possibly see a watermark if the back of the stamp has paper still attached to it. As a help, a drop of benzine placed on the back of the stamp will generally bring out what is to be seen.

Of course, the watermark may make all the difference to the value of a stamp, so you should know what is what if you wish to make the best of your collection.

As has been remarked before in these notes, a collection should be written up as it is made. But to be truthful, very few young collectors do this; time, trouble and handwriting are all against it.

It would not be advisable to write up a collection if the collector's handwriting was so bad that one cannot read it. So here is a tip for those who are using a catalogue and who find that there are varieties of watermark with the same design of the front. Lightly, in pencil, write the watermark of the stamp on the stamp mount attached.

Some watermarks are easier to see than others, and for those who have not had much experience in looking for them here are some easy ones to find.

Bavaria, the arms type of 1881 had perpendicular wavy lines, while the issue of 1888 had horizontal wavy lines. So far as value is concerned there is little to choose between them.

The one penny red of King Edward VII issue of Transvaal is usually found with the watermark Crown C.A. but some of these stamps were printed on the paper which is normally reserved for the Cape of Good Hope.

## Another "Great Man" Stamp

THE stamp we illustrate refers to a musician, and the stamp which gives his portrait is the forty cent plus ten cents of the French set issued 'Pour les chomeurs Intellectuels.' Hector Berlioz who was born in 1803 and died at the age of 66 is shown with a background of music and more than one instrument. He studied at the Paris Conservatoire and in 1830 he won the 'Prix de



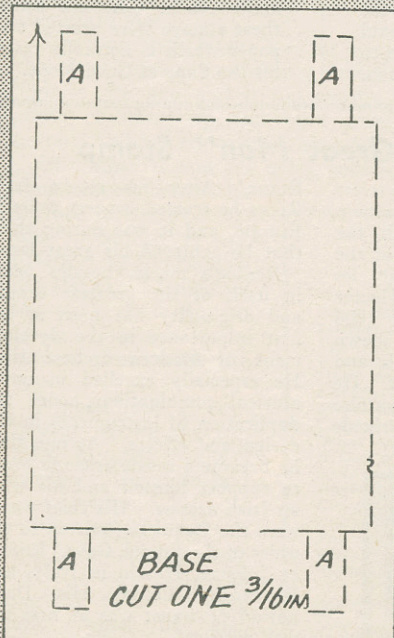
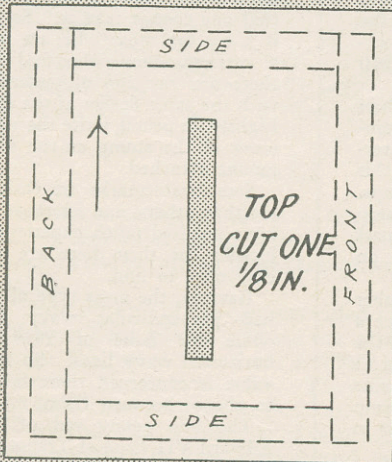
Rome.' After his return from Rome he started concert tours in Europe, and it was during these that he achieved his great fame.

Berlioz's music, besides being in itself of the greatest beauty and originality has been of the first importance in the development of modern orchestration. He especially excelled in novel musical combinations, hence the duplication of instruments in the design and effects. At one time he became a music critic in order to support himself and his wife, an Irish actress. His chief works were the Requiem (written to the order of the French Govt.) *Romeo et Juliette*, *Harold in Italy*, and *Benvenuto Cellini*. His *Damnation de Faust* was at first not well received.



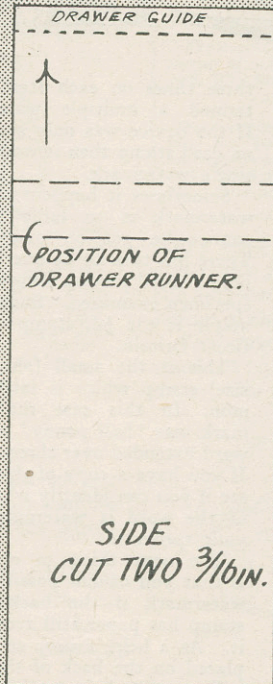
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OVERLAY, CUT FROM  
THIN WOOD OR IVORINE

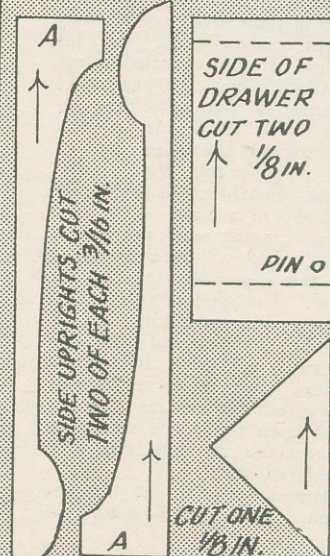


## MYSTERY MONEY BOX

See page 560



DRAWER RUNNERS,  
CUT TWO 1/8 IN..



SIDE OF  
DRAWER  
CUT TWO  
1/8 IN.

PIN O

CUT ONE  
1/8 IN.

CUT TWO 3/16 IN.

GLUE UNDER TOP.

INNER FRONT  
CUT FROM WASTE  
3/16 IN.

FLOOR OF DRAWER  
CUT ONE 1/8 IN. AND  
PIVOT TO SIDES AS  
SHOWN IN SKETCH.

FRONT, CUT ONE 3/16 IN.  
BACK, CUT ONE TO  
OUTLINE ONLY 3/16 IN.

BACK OF  
DRAWER  
CUT ONE  
1/8 IN.

Knob  
No. 80.

FRONT  
OF DRAWER  
CUT ONE  
1/8 IN.



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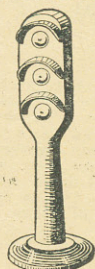
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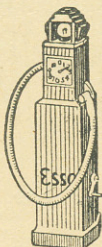
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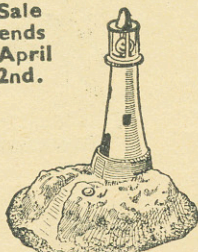


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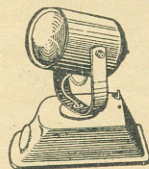
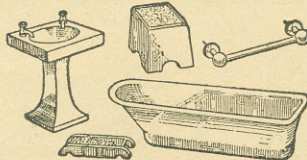
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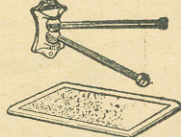
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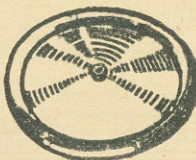


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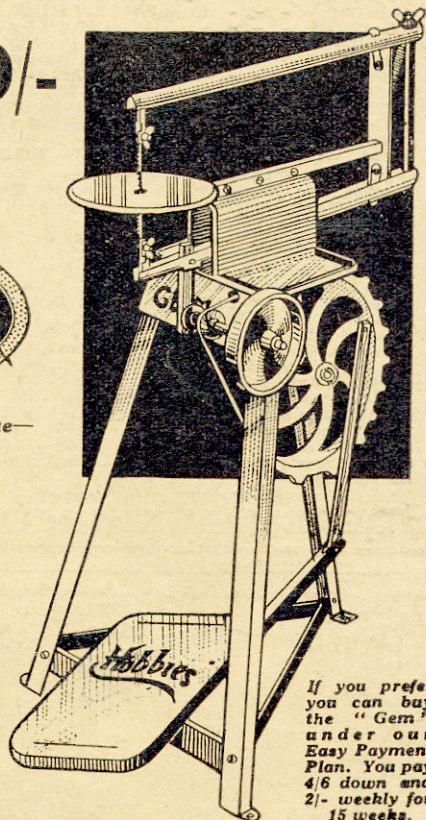
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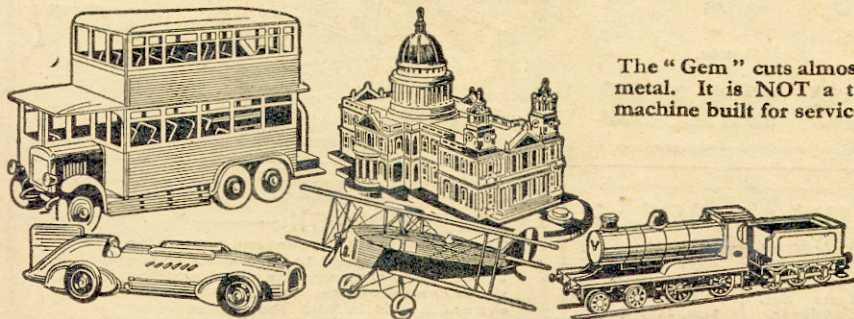


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at a fraction of Shop Prices!**



The "Gem" cuts almost anything in wood or sheet metal. It is NOT a toy, but a sound practical machine built for service.

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